

- 1 -

SEQUENCE LISTING

<110> XENOME LTD
LEWIS, Richard James (US only)
ALEWOOD, Paul Francis (US only)
ALEWOOD, Dianne (US only)
PALANT, Elka (US only)

<120> NOVEL CHI-CONOTOXIN PEPTIDES (-II)

<130> 12373580/JGC

<150> US 60/430307

<151> 2002-12-02

<160> 215

<170> PatentIn version 3.2

<210> 1

<211> 13

<212> PRT

<213> Conus marmoreus

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 1

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 2

<211> 13

<212> PRT

<213> Conus marmoreus

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 2

Val Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 3

<211> 10

<212> PRT

<213> Artificial Sequence

- 2 -

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(9)
<223> Xaa is independently absent or represent any amino acid residue
except Cys

<400> 3

Cys	Cys	Gly	Tyr	Lys	Leu	Cys	Xaa	Xaa	Cys
1				5					10

<210> 4
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is selected from Trp, DTrp, Tyr, Phe, hPhe, Ala,
O-methyl-L-tyrosine, Arg, benzoyl, naphthyl, ornithine, L or D
pyroglutamic acid and a deletion

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa is selected from Arg, Ala, Asn, Lys, Phe, L-beta-homolysine,
L-ornithine, Lys, DArg, L-norleucine, Dlys, L-Lysine(dimethyl),
DAsn, Thr, 2-aminobenzoyl (anthraniloyl), naphthyl, L-citrulline,
Val, Tyr, Trp, L or D-pyroglutamic acid or a deletion

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is selected from Gly, Asp, Lys, Arg, Ala, Nle, Ser or Phe

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> Xaa is selected from Val, Leu, Nle, Ile, Thr, Ala, Asn, Trp, Phe
and Abu

<220>
<221> MISC_FEATURE
<222> (12)..(13)
<223> Xaa are independently absent or represent any amino acid residue
except Cys

- 3 -

<400> 4

Xaa Xaa Xaa Xaa Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
1 5 10

<210> 5

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is selected from L or D-pyroglutamic acid, Pro,
4-hydroxyproline or an N-acetylated amino acid residue

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa is selected from Arg, DArg, Asn, DAsn, Lys, Thr, DLys,
L-beta-homolysine, L-ornithine, L-norleucine,
L-lysine(dimethyl), 2-aminobenzoyl(anthraniloyl), naphthyl,
L-citrulline, Val and a deletion

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is selected from Gly, Asp, Lys, Arg, Ala, L-norleucine and
Ser

<220>

<221> MISC_FEATURE

<222> (4)..(4)

<223> Xaa is selected from Val, Leu, L-norleucine, Ile, Thr, Ala and
L-alpha-aminobutyric acid

<220>

<221> MISC_FEATURE

<222> (12)..(13)

<223> Xaa are independently absent or represent any amino acid residue
except Cys

<400> 5

Xaa Xaa Xaa Xaa Cys Cys Gly Tyr Lys Leu Cys Xaa Xaa Cys
1 5 10

<210> 6

<211> 13

<212> PRT

- 4 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is selected from Arg, DArg, L-lysine(dimethyl), L-ornithine or L-beta-homolysine

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa is selected from Gly, Asp, Lys, Arg, Ala, L-norleucine and Ser

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is selected from Val, Leu, L-norleucine, Ile, Thr, Ala and L-alpha-aminobutyric acid

<220>

<221> MISC_FEATURE

<222> (11)..(12)

<223> Xaa are independently absent or represent any amino acid residue except Cys

<400> 6

Xaa	Xaa	Xaa	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	Xaa	Xaa	Cys
1				5					10			

<210> 7

<211> 13

<212> PRT

<213> Conus marmoreus

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 7

Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	Cys	His	Xaa	Cys
1				5					10			

<210> 8

<211> 11

<212> PRT

<213> Conus marmoreus

- 5 -

<220>
 <221> MISC_FEATURE
 <222> (10)..(10)
 <223> Xaa is 4-hydroxyproline

<400> 8

Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 9
 <211> 12
 <212> PRT
 <213> Conus marmoreus

<220>
 <221> MISC_FEATURE
 <222> (11)..(11)
 <223> Xaa is 4-hydroxyproline

<400> 9

Gly Ile Cys Cys Gly Val Ser Phe Cys Tyr Xaa Cys
 1 5 10

<210> 10
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MOD_RES
 <222> (11)..(11)
 <223> AMIDATION

<400> 10

Ala Cys Cys Gly Tyr Lys Leu Cys Ser Pro Cys
 1 5 10

<210> 11
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

- 6 -

<400> 11

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Leu Pro Cys
1 5 10

<210> 12

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 12

Ser Val Cys Cys Gly Tyr Lys Leu Cys Phe Pro Cys
1 5 10

<210> 13

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 13

Tyr Arg Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10

<210> 14

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

- 7 -

<222> (4)..(4)
<223> Xaa is N-norleucine

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 14

Tyr Arg Gly Xaa Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10

<210> 15
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is 4-hydroxyproline

<400> 15

Xaa Tyr Arg Gly Xaa Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10 15

<210> 16
<211> 14
<212> PRT

- 8 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 16

Trp	Arg	Gly	Leu	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
1				5					10				

<210> 17

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-ornithine

<220>

<221> MISC_FEATURE

<222> (4)..(4)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 17

Xaa	Arg	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Xaa	Cys
1				5					10				

- 9 -

<210> 18
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is 4-hydroxyproline

<400> 18

Lys	Tyr	Arg	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Xaa	Cys
1				5				10						15

<210> 19
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (9)..(9)

- 10 -

<223> Xaa is L-homoleucine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 19

Xaa Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
1 . 5 10

<210> 20

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 20

Trp Arg Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 21

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

- 11 -

<400> 21

Trp Lys Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 22

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (14)..(14)

<223> Xaa is 4-hydroxyproline

<400> 22

Phe Arg Tyr Gly Xaa Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10 15

<210> 23

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (2)..(2)

<223> Xaa is L-ornithine

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

- 12 -

<222> (9)..(9)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is 4-hydroxyproline

<400> 23

Tyr	Xaa	Arg	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Xaa	Cys
1				5					10					15

<210> 24
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is D-tryptophan

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 24

Trp	Arg	Gly	Leu	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Ala	Cys
1				5					10				

<210> 25
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

- 13 -

<400> 25

Trp Arg Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 26

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 26

Trp Arg Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 27

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-beta-homolysine

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> Xaa is L-homoleucine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 27

- 14 -

Xaa Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 28
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is 4-hydroxyproline

<400> 28

Tyr Phe Arg Gly Xaa Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10 15

<210> 29
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 29

Trp Arg Gly Val Cys Cys Gly Xaa Lys Leu Cys Arg Ala Cys
1 5 10

<210> 30
<211> 14

- 15 -

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 30

Trp Arg Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 31
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<400> 31

Trp Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Tyr Cys
1 5 10

<210> 32
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

- 16 -

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 32

Xaa Gly Xaa Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 33
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 33

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 34
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE

- 17 -

<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 34

Tyr Arg Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10

<210> 35
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 35

Trp Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys
1 5 10

<210> 36
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 36

Trp Arg Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Lys Cys
1 5 10

<210> 37
<211> 14
<212> PRT

- 18 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<400> 37

Trp	Arg	Gly	Leu	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Ala	Cys
1				5					10				

<210> 38

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 38

Trp	Arg	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	Arg	Ala	Cys
1				5					10				

<210> 39

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 39

Trp	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	Arg	Xaa	Cys
1				5					10				

<210> 40

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

- 19 -

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<400> 40

Trp	Arg	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Ala	Cys
1				5					10				

<210> 41

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (14)..(14)

<220>

<221> misc_feature

<222> (14)..(14)

<223> Xaa can be any naturally occurring amino acid

<400> 41

Xaa	Tyr	Arg	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Xaa	Cys
1				5					10					15

<210> 42

<211> 13

<212> PRT

<213> Artificial Sequence

- 20 -

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (1)..(1)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> misc_feature
<222> (9)..(9)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 42

Xaa Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
1 5 10

<210> 43
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 43

Trp Arg Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys Tyr
1 5 10 15

<210> 44

- 21 -

<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa can be any naturally occurring amino acid

<400> 44

Trp Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys Tyr
1 5 10

<210> 45
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

- 22 -

<400> 45

Xaa Gly Xaa Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 46

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 46

Trp Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 47

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> misc_feature

<222> (9)..(9)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> MISC_FEATURE

- 23 -

<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 47

Asn Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
1 5 10

<210> 48
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> misc_feature
<222> (9)..(9)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 48

Xaa Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
1 5 10

<210> 49
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

- 24 -

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> misc_feature
<222> (9)..(9)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 49

Xaa Gly Val Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 50
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> Xaa is L-norleucine

<400> 50

Tyr Asn Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 51
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE

- 25 -

<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 51

Xaa Gly Leu Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 52
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> misc_feature
<222> (9)..(9)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)

<220>
<221> misc_feature
<222> (12)..(12)
<223> Xaa can be any naturally occurring amino acid

<400> 52

Xaa Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

- 26 -

<210> 53
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 53

Trp Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
1 5 10

<210> 54
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 54

Trp Arg Gly Val Cys Cys Gly Tyr Lys Leu Cys His Ala Cys
1 5 10

<210> 55
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (14)..(14)

- 27 -

<223> Xaa is 4-hydroxyproline

<400> 55

Asp	Tyr	Arg	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	Arg	Xaa	Cys
1				5					10					15

<210> 56

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (10)..(10)

<223> Xaa is L-homoleucine

<400> 56

Tyr	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Xaa	Cys	His	Pro	Cys
1				5					10				

<210> 57

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (9)..(9)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 57

Asn	Gly	Xaa	Cys	Cys	Gly	Tyr	Lys	Xaa	Cys	His	Xaa	Cys
1				5					10			

- 28 -

<210> 58
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 58

Xaa Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 59
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 59

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Trp Pro Cys
1 5 10

<210> 60
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 60

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Pro Cys
1 5 10

- 29 -

<210> 61
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 61

Asn Gly Xaa Cys Cys Gly Xaa Lys Xaa Cys His Xaa Cys
1 5 10

<210> 62
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 62

Tyr Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys Arg Ala Cys
1 5 10

- 30 -

<210> 63
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 63

Asn Asp Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 64
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 64

Trp Arg Gly Leu Cys Cys Gly Tyr Lys Leu Cys Arg Gly Cys
1 5 10

<210> 65
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is D-pyroglutamic acid

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 65

Xaa Gly Leu Cys Cys Gly Xaa Lys Leu Cys Arg Xaa Cys Tyr
1 5 10

- 31 -

<210> 66
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 66

Xaa Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 67
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-homophenylalanine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 67

- 32 -

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 68
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 68

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Xaa Cys
1 5 10

<210> 69
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 69

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Ala Cys
1 5 10

<210> 70
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is O-methyl-L-tyrosine

<400> 70

- 33 -

Phe Gly Gly Phe Trp Cys Cys Gly Xaa Lys Leu Cys Arg Ala Cys
1 5 10 15

<210> 71
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 71

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Trp Xaa Cys
1 5 10

<210> 72
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 72

Trp Asn Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 73
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<223> Xaa is L-norleucine

- 34 -

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<400> 73

Xaa	Gly	Xaa	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Pro	Cys
1			5						10			

<210> 74
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 74

Asn	Gly	Xaa	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
1			5						10			

<210> 75
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>

- 35 -

<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<400> 75

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
1 5 10

<210> 76
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is L-homoleucine

<400> 76

Xaa Gly Val Cys Cys Gly Tyr Lys Xaa Cys His Pro Cys
1 5 10

<210> 77
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is D-arginine

<220>
<221> MISC_FEATURE
<222> (7)..(7)

- 36 -

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 77

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 78

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 78

Trp Arg Gly Leu Cys Cys Gly Tyr Lys Leu Cys Arg Ala Cys
1 5 10

<210> 79

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-beta-homolysine

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is O-methyl-L-tyrosine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 79

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

- 37 -

<210> 80
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is L-homoleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 80

Asn Gly Xaa Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 81
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 81

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Ala Cys
1 5 10

<210> 82
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 82

Trp Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

- 38 -

<210> 83
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 83

Phe Gly Gly Phe Cys Cys Gly Xaa Lys Leu Cys Arg Ala Cys
1 5 10

<210> 84
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 84

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Pro Cys
1 5 10

<210> 85
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 85

Trp Lys Asp Leu Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 86
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

- 39 -

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 86

Tyr Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
1 5 10

<210> 87
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 87

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Xaa Cys
1 5 10

<210> 88
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 88

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

- 40 -

<210> 89
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 89

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Arg Pro Cys
1 5 10

<210> 90
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 90

Trp Lys Asp Leu Cys Cys Gly Tyr Lys Leu Cys Trp Pro Cys
1 5 10

<210> 91
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 91

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Trp Pro Cys
1 5 10

<210> 92
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 92

Trp Lys Asp Val Cys Cys Gly Tyr Lys Leu Cys Trp Pro Cys
1 5 10

<210> 93

- 41 -

<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-beta-homolysine

<400> 93

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 94
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is O-methyl-L-tyrosine

<400> 94

Tyr Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys Pro Cys
1 5 10

<210> 95
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (2)..(2)
<223> Xaa is L-beta-homolysine

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

- 42 -

<400> 95

Trp Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 96

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-beta-homolysine

<220>

<221> MISC_FEATURE

<222> (3)..(3)

<223> Xaa is L-norleucine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 96

Xaa Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 97

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 97

Asn Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 98

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

- 43 -

<223> synthetic

<400> 98

Arg Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 99

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<223> Cyclic peptide residue 1 is joined to residue 13

<400> 99

Gly Tyr Lys Leu Gly Cys Cys Gly Tyr Lys Leu Cys Cys
1 5 10

<210> 100

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (15)..(15)

<223> Xaa is 4-hydroxyproline

<400> 100

Trp Ala Ala Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10 15

<210> 101

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

- 44 -

<221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is L-beta-homolysine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 101

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 102
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is L-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<400> 102

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 103
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is D-arginine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 103

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys

- 45 -

1 5 10

<210> 104
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is O-methyl-L-tyrosine

<400> 104

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 105
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 105

Gly Ile Leu Arg Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro
1 5 10 15

Cys

<210> 106
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is 4-hydroxyproline

<400> 106

- 46 -

Trp Ala Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10 15

<210> 107
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is O-methyl-L-tyrosine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 107

Xaa Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 108
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<223> Xaa is L-ornithine

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-ornithine

<400> 108

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

- 47 -

<210> 109
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLATION

<220>
<221> misc_feature
<222> (2)..(2)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa is L-beta-homolysine

<220>
<221> misc_feature
<222> (13)..(13)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is 4-hydroxyproline

<400> 109

Trp Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 110
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 110

Tyr Asn Lys Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 111
<211> 13

- 48 -

<212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is L-beta-homolysine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is L-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<400> 111

Xaa	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 112
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (3)..(3)
 <223> Xaa is L-norleucine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 112

Asn	Gly	Xaa	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 113
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

- 49 -

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa is O-methyl-L-tyrosine
 <400> 113

Asn	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Pro	Cys
1				5					10			

<210> 114
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> ACETYLATION

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is L-beta-homolysine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 114

Xaa	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 115
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 115

- 50 -

Asn Gly Leu Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 116
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 116

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 117
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 117

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Lys Cys
1 5 10

<210> 118
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 118

Tyr Asn Arg Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 119
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE

- 51 -

<222> (1)..(1)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 119

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 120
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is benzoyl

<400> 120

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 121
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is D-lysine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 121

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

- 52 -

<210> 122
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 122

Asn	Lys	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	His	Pro	Cys
1				5					10			

<210> 123
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa is O-methyl-L-tyrosine

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 123

Asn	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 124
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (12)..(12)
 <223> Xaa can be any naturally occurring amino acid

<400> 124

- 53 -

Asn Ala Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 125
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 125

Asn Gly Ile Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 126
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is L-norleucine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 126

Asn Gly Val Cys Cys Gly Tyr Lys Xaa Cys His Xaa Cys
1 5 10

<210> 127
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-Lysine (dimethyl)

- 54 -

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline)

<400> 127

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 128

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is D-asparagine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 128

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 129

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is L-Pipecolic acid (homo proline)

<400> 129

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 130

- 55 -

<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 130

Ala Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 131
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is naphthyl

<400> 131

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 132
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<400> 132

Tyr Asn Xaa Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

- 56 -

<210> 133
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 133

Phe Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 134
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa is N-Naphthylalanine

<400> 134

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
1 5 10

<210> 135
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 135

- 57 -

Thr Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 136
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is 2-aminobenzoyl (anthraniloyl)

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 136

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 137
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is naphthyl

<400> 137

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 138
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

- 58 -

<400> 138

Asn Gly Thr Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 139

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-Citrulline

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 139

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 140

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<220>

<221> misc_feature

<222> (8)..(8)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> MISC_FEATURE

- 59 -

<222> (13)..(13)

<223> Xaa is 4-hydroxyproline

<400> 140

Xaa Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 141

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is O-methyl-L-tyrosine

<400> 141

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 142

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 142

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 143

<211> 13

<212> PRT

- 60 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MOD_RES

<222> (1)..(1)

<223> ACETYLATION

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 143

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 144

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is D-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 144

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 145

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 145

- 61 -

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Ala Cys
 1 5 10

<210> 146
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 146

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 147
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 147

Asp Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 148
 <211> 9
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 148

Val Cys Cys Gly Tyr Lys Leu Cys Cys
 1 5

<210> 149
 <211> 13
 <212> PRT
 <213> Artificial Sequence

- 62 -

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is L-dimethyldopa or L-dimethoxyphenylalanine

<400> 149

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 150
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 150

Asn Gly Ala Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 151
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 151

Asp Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 152
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

- 63 -

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLTATION

<400> 152

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 153
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 153

Asn Gly Ala Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 154
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-pyrogutamic acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 154

Xaa Asp Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

- 64 -

<210> 155
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 155

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Phe Cys
1 5 10

<210> 156
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 156

Asn Ser Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 157
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-pyroglutamic acid

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is 4-hydroxyproline

<400> 157

Xaa Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 158
<211> 13
<212> PRT
<213> Artificial Sequence

- 65 -

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is L-thiazolidine-4-carboxylic acid

<400> 158

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 159
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 159

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Glu Cys
1 5 10

<210> 160
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> misc_feature
<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 160

Asn Gly Xaa Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 161
<211> 14

- 66 -

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MOD_RES
<222> (1)..(1)
<223> ACETYLTATION

<400> 161

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 162
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is L-norleucine

<400> 162

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 163
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 163

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Gln Pro Cys
1 5 10

<210> 164
<211> 13
<212> PRT
<213> Artificial Sequence

- 67 -

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (1)..(1)
 <223> Xaa is D-pyroglutamic acid

<220>
 <221> MISC_FEATURE
 <222> (12)..(12)
 <223> Xaa is 4-hydroxyproline

<400> 164

Xaa Gly Val Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 165
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<400> 165

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys His Tyr Cys
 1 5 10

<210> 166
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa is D-lysine

<400> 166

Asn Gly Val Cys Cys Xaa Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 167
 <211> 13
 <212> PRT

- 68 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is L-Lysine (dimethyl)

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 167

Asn Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Xaa Cys
1 5 10

<210> 168

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is L-homotyrosine

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 168

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Xaa Cys
1 5 10

<210> 169

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

- 69 -

<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa is L-3-pyridylalanine

<400> 169

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
1 5 10

<210> 170
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 170

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Lys Pro Cys
1 5 10

<210> 171
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 171

Tyr Asn Gly Val Cys Cys Gly Leu Lys Leu Cys His Pro Cys
1 5 10

<210> 172
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 172

Asn Gly Val Cys Cys Gly Tyr Ala Leu Cys His Pro Cys
1 5 10

<210> 173
<211> 10
<212> PRT
<213> Artificial Sequence

- 70 -

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is 4-hydroxyproline

<400> 173

Cys Cys Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 174
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 174

Tyr Asn Gly Val Cys Cys Gly Tyr Leu Leu Cys His Pro Cys
1 5 10

<210> 175
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 175

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Asn Cys His Pro Cys
1 5 10

<210> 176
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is L-2-furylalanine

- 71 -

<400> 176

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
 1 5 10

<210> 177

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 177

Asn Gly Val Cys Cys Gly Tyr Arg Leu Cys His Xaa Cys
 1 5 10

<210> 178

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (11)..(11)

<223> L-histidine(benzyloxymethyl)

<400> 178

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
 1 5 10

<210> 179

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 179

Tyr Asn Gly Val Cys Cys Gly Tyr Phe Leu Cys His Pro Cys

- 72 -

1

5

10

<210> 180
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa is L-histidine(3-methyl)

<400> 180

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Xaa Pro Cys
1 5 10

<210> 181
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 181

Asn Gly Val Cys Cys Gly Tyr His Leu Cys His Pro Cys
1 5 10

<210> 182
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-pyroglutamic acid

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is L-norleucine

<220>

- 73 -

<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 182

Xaa Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Xaa Cys
1 5 10

<210> 183
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa is D-glutamic acid

<400> 183

Asn Gly Val Cys Cys Glu Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 184
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 184

Tyr Asn Gly Val Cys Cys Gly Asn Lys Leu Cys His Pro Cys
1 5 10

<210> 185
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa is L-norleucine

- 74 -

<400> 185

Asn Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Pro Cys
1 5 10

<210> 186

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 186

Asn Gly Val Cys Cys Ser Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 187

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 187

Xaa Gly Val Cys Cys Gly Trp Lys Leu Cys His Xaa Cys
1 5 10

<210> 188

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

- 75 -

<222> (6)..(6)

<223> Xaa is D-serine

<400> 188

Asn Gly Val Cys Cys Xaa Tyr Lys Leu Cys His Pro Cys
1 5 10

<210> 189

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (1)..(1)

<223> Xaa is L-pyroglutamic acid

<220>

<221> MISC_FEATURE

<222> (8)..(8)

<223> Xaa is L-Citrulline

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 189

Xaa Gly Val Cys Cys Gly Tyr Xaa Leu Cys His Xaa Cys
1 5 10

<210> 190

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 190

Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Ala Xaa Cys
1 5 10

- 76 -

<210> 191
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (7)..(7)
 <223> Xaa is L-1,2,3,4-tetrahydroisoquinoline-3-carboxylic acid

<400> 191

Asn Gly Val Cys Cys Gly Xaa Lys Leu Cys His Pro Cys
 1 5 10

<210> 192
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> MISC_FEATURE
 <222> (6)..(6)
 <223> Xaa is D-phenylalanine

<400> 192

Asn Gly Val Cys Cys Xaa Tyr Lys Leu Cys His Pro Cys
 1 5 10

<210> 193
 <211> 12
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> synthetic

<220>
 <221> misc_feature
 <222> (11)..(11)
 <223> Xaa can be any naturally occurring amino acid

<400> 193

- 77 -

Gly Ile Cys Cys Gly Val Ser Phe Cys Tyr Xaa Cys
1 5 10

```
<210> 194
<211> 13
<212> PRT
<213> Artificial Sequence
```

<220>
<223> synthetic

<400> 194

Asn Gly Val Cys Cys Gly Tyr Gln Leu Cys His Pro Cys
1 5 10

```
<210> 195
<211> 14
<212> PRT
<213> Artificial Sequence
```

<220>
<223> synthetic

<400> 195

Tyr Asn Gly Val Cys Cys Gly Glu Lys Leu Cys His Pro Cys
1 5 10

```
<210> 196
<211> 13
<212> PRT
<213> Artificial Sequence
```

<220>
<223> synthetic

<400> 196

Asn Gly Val Cys Cys Gly Tyr Lys Lys Cys His Pro Cys
1 5 10

```
<210> 197
<211> 13
<212> PRT
<213> Artificial Sequence
```

<220>
<223> synthetic

<220>

- 78 -

<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-pyroglutamic acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 197

Xaa Gly Val Cys Cys Gly Glu Lys Leu Cys His Xaa Cys
1 5 10

<210> 198
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is L-pyroglutamic acid

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 198

Xaa Gly Val Cys Cys Gly Ile Lys Leu Cys His Xaa Cys
1 5 10

<210> 199
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 199

Arg Asn Cys Cys Arg Leu Gln Val Cys Cys Gly
1 5 10

<210> 200
<211> 13
<212> PRT

- 79 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 200

Val Gly Val Asp Asp Gly Tyr Lys Leu Cys His Xaa Cys
1 5 10

<210> 201

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 201

Tyr Asn Gly Val Cys Cys Gly Lys Lys Leu Cys His Pro Cys
1 5 10

<210> 202

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 202

Asn Gly Val Cys Cys Gly Tyr Lys Ala Cys His Xaa Cys
1 5 10

<210> 203

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

- 80 -

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 203

Asn Gly Val Cys Cys Gly Tyr Ala Leu Cys His Xaa Cys
 1 5 10

<210> 204

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 204

Asn Gly Val Cys Cys Gly Ala Lys Leu Cys His Xaa Cys
 1 5 10

<210> 205

<211> 13

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (12)..(12)

<223> Xaa is 4-hydroxyproline

<400> 205

Asn Gly Val Cys Cys Ala Tyr Lys Leu Cys His Xaa Cys
 1 5 10

<210> 206

<211> 13

<212> PRT

- 81 -

<213> Artificial Sequence

<220>

<223> synthetic

<220>

<221> MISC_FEATURE

<222> (7)..(7)

<223> Xaa is L-dimethyldopa or L-dimethoxyphenylalanine

<400> 206

Asn	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Pro	Cys
1				5					10			

<210> 207

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 207

Tyr	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Leu	Cys	Arg	Pro	Cys
1				5					10				

<210> 208

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 208

Tyr	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Ile	Leu	Cys	His	Pro	Cys
1				5					10				

<210> 209

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic

<400> 209

Tyr	Asn	Gly	Val	Cys	Cys	Gly	Tyr	Lys	Asp	Cys	His	Pro	Cys
1				5					10				

- 82 -

<210> 210
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 210

Tyr Asn Gly Val Cys Cys Gly Tyr Lys Leu Cys Glu Pro Cys
1 5 10

<210> 211
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 211

Tyr Asn Gly Val Cys Cys Gly Tyr Trp Leu Cys His Pro Cys
1 5 10

<210> 212
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 212

Tyr Asn Gly Val Cys Cys Gly Tyr Tyr Leu Cys His Pro Cys
1 5 10

<210> 213
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is L-dimethyldopa or L-dimethoxyphenylalanine

- 83 -

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 213

Asn	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 214
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is L-Diphenylalanine

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 214

Asn	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			

<210> 215
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa is L-Lysine (dimethyl)

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is 4-hydroxyproline

<400> 215

- 84 -

Asn	Gly	Val	Cys	Cys	Gly	Xaa	Lys	Leu	Cys	His	Xaa	Cys
1				5					10			